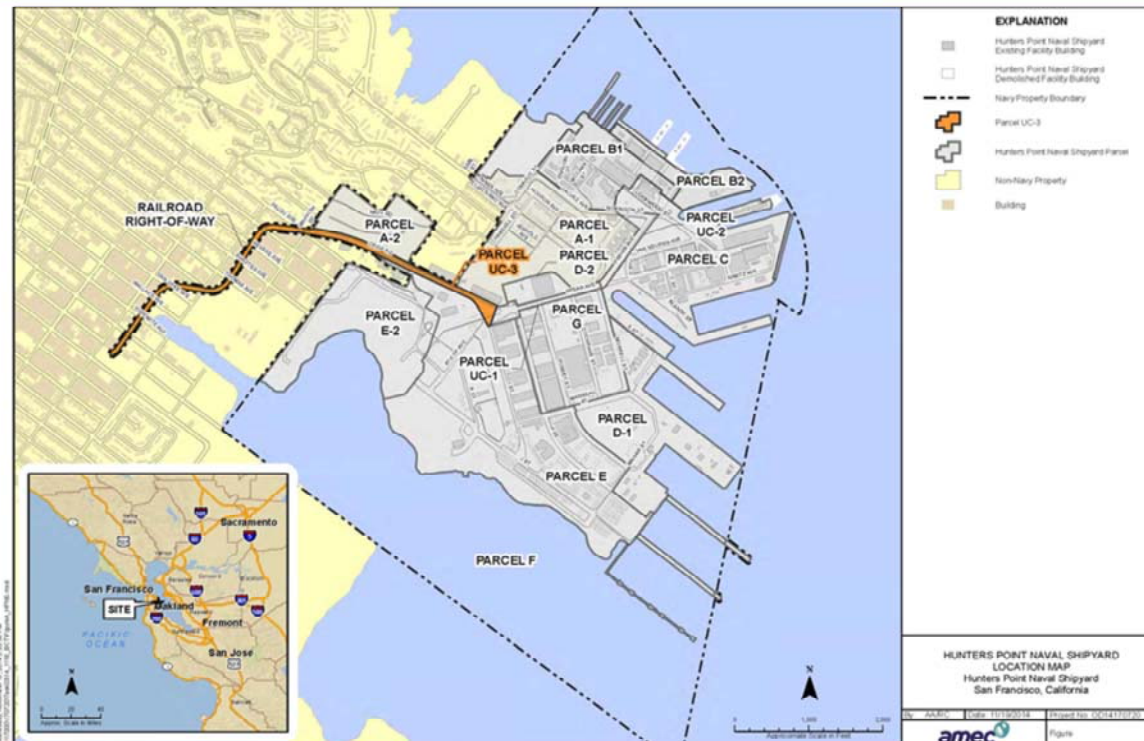


# Parcel UC-3, Hunters Point Naval Shipyard

BCT Presentation, December 4, 2014  
Remedial Design



## Site History & Location



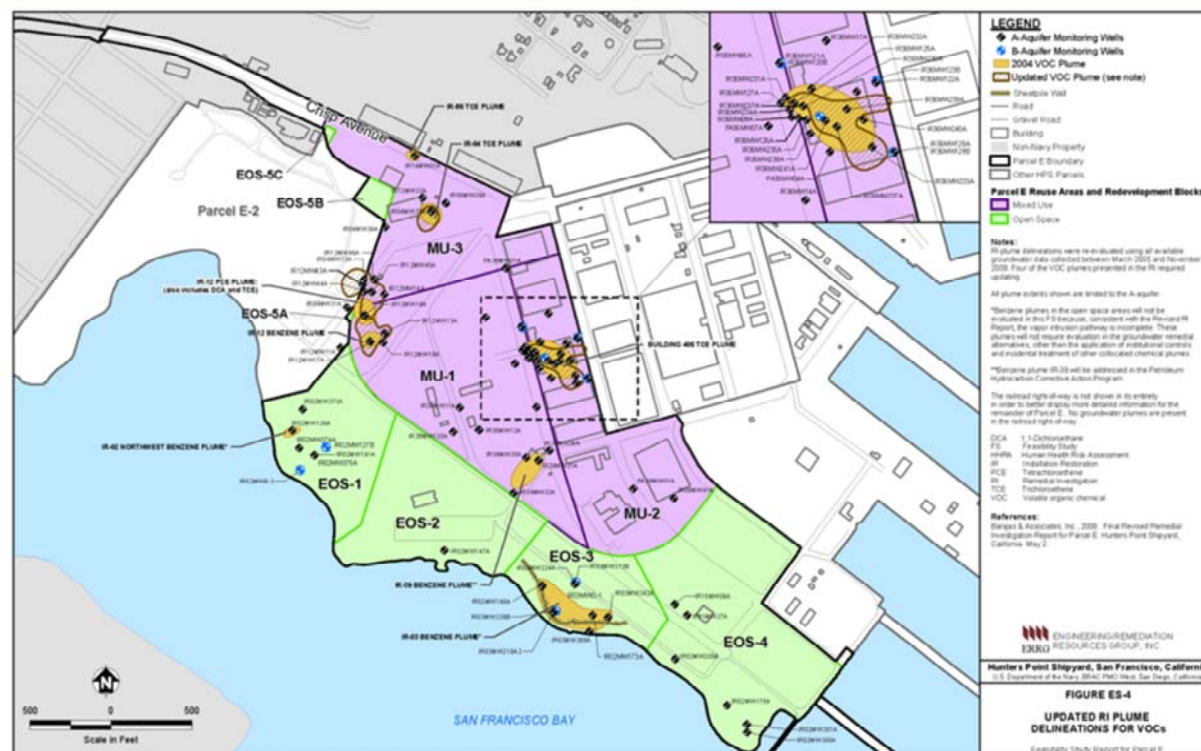
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- UC-3 primarily occupies Crisp Road and the Railroad Right-of-Way.
- This area was originally part of Parcel A, then Parcel E.
- Parcel E RI (2008) and FS (2012) apply to Parcel UC-3.
- RAOs for the Parcel UC-3 ROD (2014) were carried forward from the Parcel E FS.



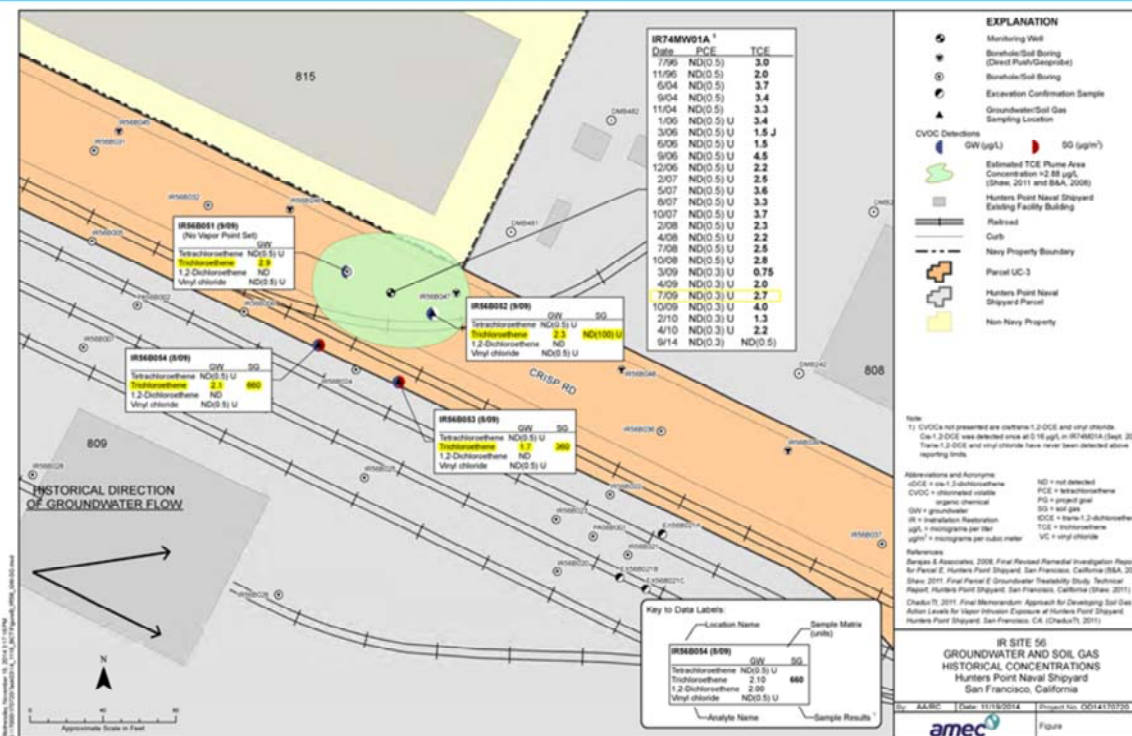
# Groundwater VOC Plumes



- Parcel E RI & FS identified VOC plumes exceeding residential VI screening criteria (2.9 ug/l for TCE)
- Parcel E FS identified the following RAOs:
  - Human health risks via domestic use pathway from the B-aquifer
  - Human health risks to construction workers from dermal exposure and inhalation from the A-aquifer
  - The potential migration of contaminated groundwater into San Francisco Bay that could affect surface water
- Vapor intrusion pathway is addressed by the soil gas RAO in the FS



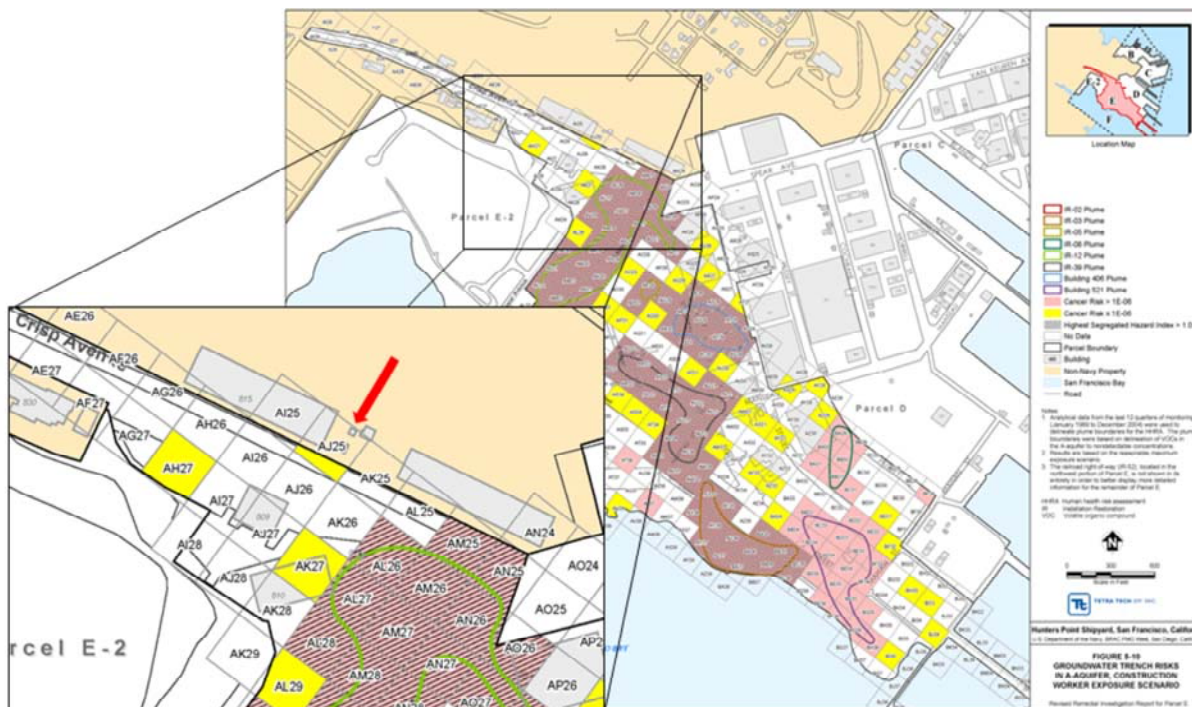
# Site IR56 TCE Plume



- IR56 plume initially identified by detection of TCE in IR74MW01A.
- Plume boundaries estimated at the 2.9 ug/l concentration contour
- Groundwater Treatability Study (2009):
  - GW and soil gas samples in 4 locations around IR74MW01A
  - TCE = 1.7 to 2.9 ug/l in GW
- IR74MW01A current TCE concentration – ND at 0.5 ug/l



# IR56 Plume HHRA



- Human Health Risk Assessment completed as part of Remedial Investigation:
  - Concentrations of TCE present at the IR56 plume did not exceed a cancer risk of  $1 \times 10^{-6}$  or HI of 1 for the Construction Worker Exposure Scenario, therefore not a pathway of concern.
  - Only pathway of concern identified for the IR56 plume, vapor intrusion, would be addressed by soil gas RAOs.



## UC-3 ROD GW Alternative



- RAO for construction worker exposure scenario for A-aquifer
- Remediation Goal of 370 ug/l for TCE
- Remedial alternative GW-3 selected
  - ISB
  - MNA
  - Long term monitoring & Maintenance
  - ICs

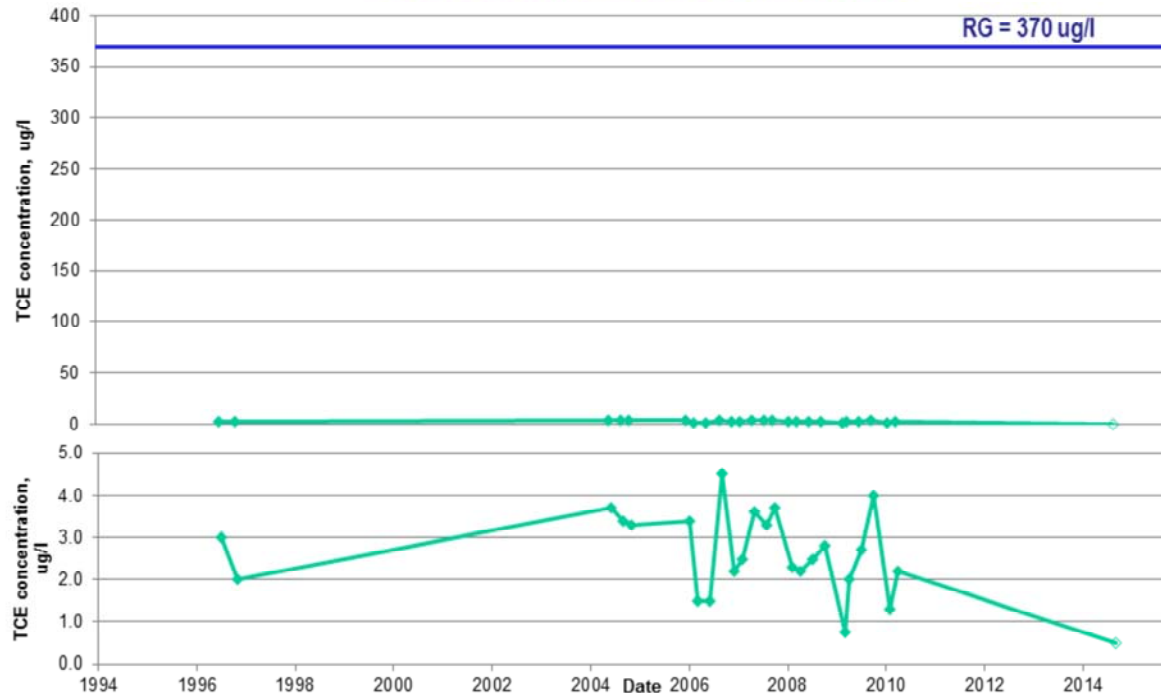
Note: RG of 370 ug/l for TCE for Construction Worker Exposure Scenario was calculated for the Building 406 plume in Parcel E



# Applicability of Alternative GW-3



TCE Concentrations at IR74MW01A



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ISB & MNA remedies do not need to be implemented:

- All historically detected concentrations far below RG for construction worker exposure (370 ug/l)
- Currently non-detect at 0.5 ug/l RL



## Path forward for groundwater remedy



- Identify COC-based success criteria for ISB & MNA, and demonstrate compliance.
- Future monitoring of IR74MW01A via RAMP.
- IC restricting domestic use of groundwater in MU-3.
- Vapor intrusion addressed via soil gas RAOs and future soil gas evaluation.



## Steam Lines in UC-3



- **Parcel A RI (PRC/Harding Lawson, 1995)**
- **Basewide Environmental Baseline Survey (TtEM, 1998)**
- **General Work Plan, Excavation of Impacted Soil and Closure of Abandoned Steam and Fuel Pipelines (IT, 2001)**
- **Parcel E RI (Barajas, 2008)**
- **Parcel E FS (ERRG, 2012)**
- **Parcel UC-3 ROD (KCH, 2014)**

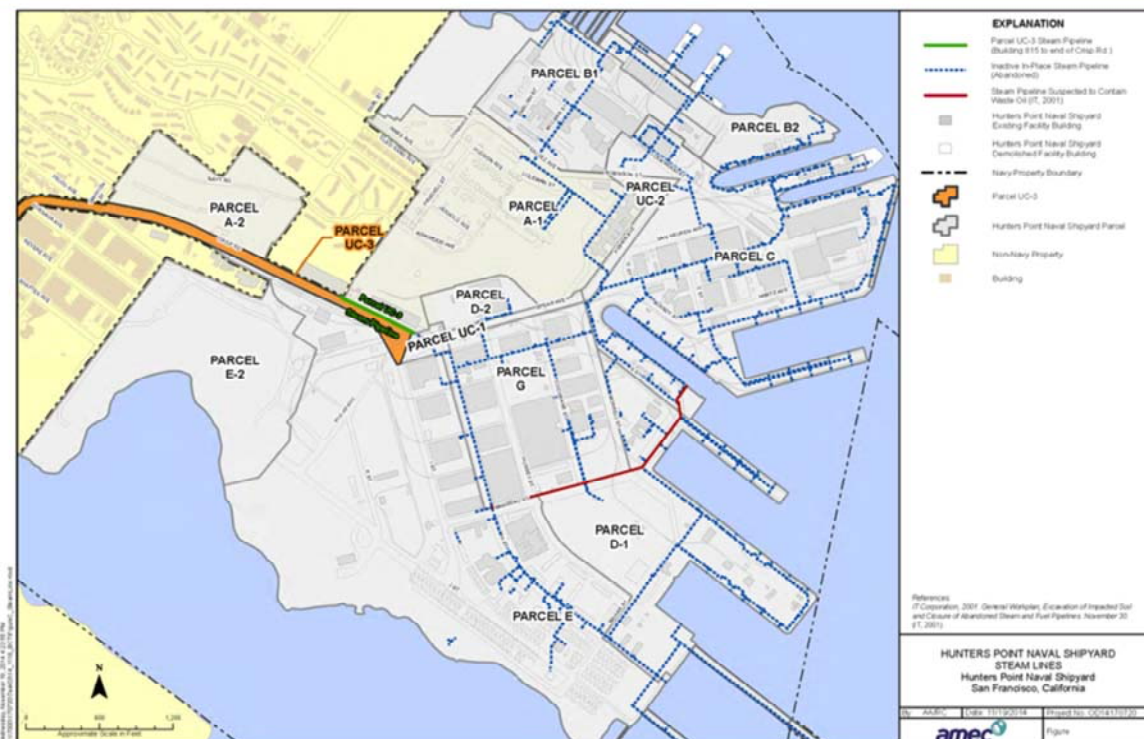
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- Parcel A RI – Steam line inspection at access point within current UC-3 boundary; no visual indication of oil
- Baseline Survey - Documented the portions of the steam lines that were suspected to be used by Triple A to transport waste oil; not within current UC-3 boundary.
- General Workplan for Excavation & Closure – Figure depicted portions of steam lines suspected to contain waste oil; not within current UC-3 boundary
- Parcel E RI and FS - Identified the need to address the steam line and the potential for soil contamination from residual waste within the steam line.
- The Parcel UC-3 ROD Remedy:
  - “Additional investigation of the underground steam line will be required to assess whether individual steam lines within Parcel UC-3 were used to transfer waste oil and if so, whether they leaked into the concrete utility corridors.”



# Steam Line Locations



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Steam lines present in UC-3 do not present a risk because:

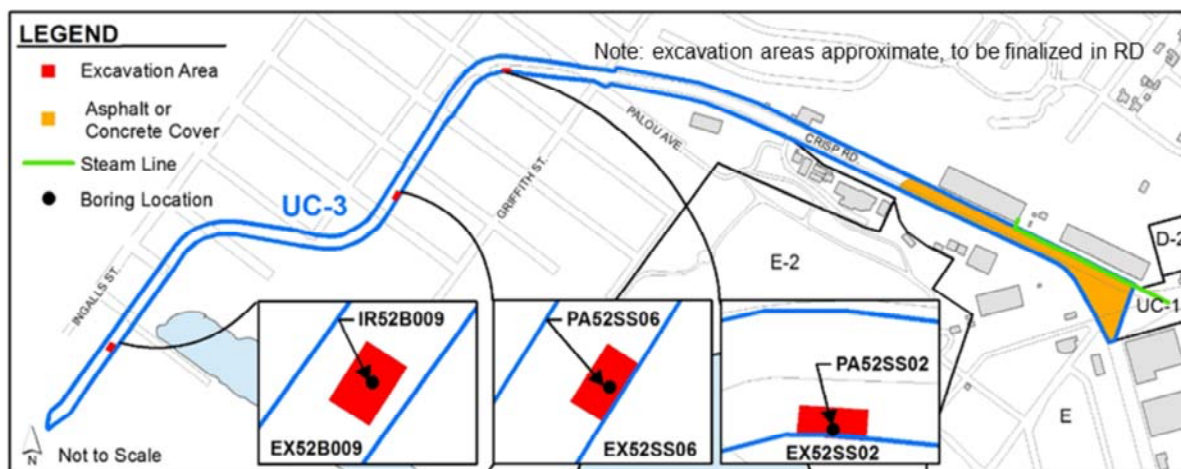
- Steam lines in Parcels C & D investigated; impacted portions closed or removed under a TCRA in 2001 & 2002. Portions adjacent to current UC-3 were determined to be unimpacted and were closed in place.
- UC-3 steam lines located >1200 feet upgradient from nearest portion of impacted steam line
- UC-3 portion of steam line inspected during Baseline Survey (1998), found no evidence of contamination



# Remedial Design Components



- Demonstration of GW natural attenuation
- Soil excavation & disposal
- Steam line NFA rationale
- Soil gas survey
- Durable cover placement, O&M
- Groundwater monitoring
- ICs



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- No active groundwater remediation for the IR56 GW plume
- No further action for steam lines.
- Soil gas investigation will occur after excavation, following the SGAL memo for identification of ARICs for vapor intrusion



# Remedial Design Schedule



- **No Pre-Design Investigation needed**
- **Originally scheduled to be submitted as 30%, 60% and 100%.**
- **Proposed change to single document**
  - Draft for 45-day review
  - Standard response to comments process
- **Draft RD to be submitted to BCT ~ June 2015**



## References



- Barajas & Associates, 2008. Revised Remedial Investigation Report for Parcel E
- ChaduxTt, 2011. Memorandum: Approach for Developing Soil Gas Action Levels for Vapor Intrusion Exposure at Hunters Point Naval Shipyard
- ERRG, 2012. Final Feasibility Study Report for Parcel E
- IT, 2001. General Work Plan, Excavation of Impacted Soil and Closure of Abandoned Steam and Fuel Pipelines
- KCH, 2014. Record of Decision for Parcel UC-3
- PRC/Harding Lawson, 1995. Parcel A Remedial Investigation Report
- Shaw, 2011. Final Parcel E Groundwater Treatability Study Technical Report
- TtEM, 1998. Basewide Environmental Baseline Survey, Rev 01
- TtEM, 2002. Final Parcel C Time-Critical Removal Action Closeout Report
- TtMI, 2001. Final Parcel D Time Critical Removal Action Closeout Report